

CASE NO.: HSJ920030120US1  
Serial No.: 10/661,273  
October 5, 2005  
Page 2

PATENT  
Filed: September 11, 2003

1. (currently amended) A hard disk drive, comprising:
  - a base;
  - a cover covering the base;
  - at least one rotatable data storage disk supported on the base;
  - at least one actuator movably mounted within the base;
  - at least one assembly supported by the actuator, the assembly including a slider supported by a suspension; and
  - at least one motion limiting element positioned to block shock-induced motion of the assembly when the slider is operating in at least an active region of the disk, the motion limiting element being spaced from the suspension such that motion of the suspension away from the disk in the event of a shock when the slider is operating in the region is constrained by the motion limiting element, wherein a distance between the motion limiting element and the assembly is established to constrain movement of the suspension away from the disk such that an air bearing between the slider and disk ~~substantially~~ is not substantially disrupted.

2. (canceled).

3. (previously presented) The disk drive of Claim 1, wherein both the cover and the base are formed with respective motion limiting elements.

1189.RAM3

BEST AVAILABLE COPY

CASE NO.: HSJ920030120US1  
Serial No.: 10/661,273  
October 5, 2005  
Page 3

PATENT  
Filed: September 11, 2003

4. (previously presented) The disk drive of Claim 1, wherein the motion limiting element is established at least in part by an indent in the cover depending down from a plane defined by the cover.

5. (previously presented) The disk drive of Claim 1, wherein the motion limiting element is established at least in part by a rib in the base rising up from a plane defined by the base.

6. (previously presented) The disk drive of Claim 1, wherein the disk defines a data storage area and the motion limiting element is arcuate shaped across substantially the entire data storage area of the disk.

7. (previously presented) The disk drive of Claim 1, wherein the disk defines a data storage area and the motion limiting element extends only across a portion of the radius of the data storage area of the disk.

8. (withdrawn) The disk drive of Claim 7, wherein the motion limiting element is juxtaposed with and separate from a load-unload ramp of the disk drive.

9. (original) A hard disk drive having a motion limiting element mechanically constraining movement of at least one suspension of the disk drive away from a disk of the disk drive in the event of a mechanical shock to the disk drive while operating at least in a protected region of the disk such that an air bearing between a slider supported by the suspension and the disk is not substantially disrupted.

1189-8-AM3

BEST AVAILABLE COPY

CASE NO.: HSJ920030120US1  
Serial No.: 10/661,273  
October 5, 2005  
Page 4

PATENT  
Filed: September 11, 2003

10. (original) The hard disk drive of Claim 9, comprising:
- a base;
  - a cover covering the base; and
  - at least one actuator movably mounted within the base, the suspension being mounted on an end of the actuator.
11. (original) The disk drive of Claim 10, wherein both the cover and the base are formed with respective motion limiting elements.
12. (original) The disk drive of Claim 10, wherein the motion limiting element is established at least in part by an indent in the cover depending down from a plane defined by the cover.
13. (original) The disk drive of Claim 10, wherein the motion limiting element is established at least in part by a rib in the base rising up from a plane defined by the base.
14. (original) The disk drive of Claim 10, wherein the disk defines a data storage area and the motion limiting element is arcuate shaped across substantially the entire data storage area of the disk.
15. (original) The disk drive of Claim 10, wherein the disk defines a data storage area and the motion limiting element extends only across a portion of the data storage area of the disk.

1189-8.AM3

BEST AVAILABLE COPY

CASE NO.: HSJ920030120US1  
Serial No.: 10/661,273  
October 5, 2005  
Page 5

PATENT  
Filed: September 11, 2003

16. (withdrawn) The disk drive of Claim 15, wherein the motion limiting element is juxtaposed with a load-unload ramp of the disk drive.

17. (previously presented) A data storage device, comprising:

at least one data storage medium;

at least one data transfer element juxtaposed with the medium for transferring data therebetween; and

means for mechanically constraining movement of the data transfer element away from the data storage medium in the event of a mechanical shock to the device while operating in a protected region of the medium such that an air bearing surface is not disrupted by the movement of the data transfer element.

18. (original) The data storage device of Claim 17, comprising:

a base;

a cover covering the base; and

at least one actuator movably mounted within the base, the data transfer element being mounted on an end of the actuator.

19. (original) The data storage device of Claim 18, wherein both the cover and the base are formed with respective means for mechanically constraining.

1189-8.AM3

BEST AVAILABLE COPY

CASE NO.: HSJ920030120US1  
Serial No.: 10/661,273  
October 5, 2005  
Page 6

PATENT  
Filed: September 11, 2003

20. (original) The data storage device of Claim 18, wherein the means for mechanically constraining is established at least in part by an indent in the cover depending down from a plane defined by the cover.

21. (original) The data storage device of Claim 18, wherein the means for mechanically constraining is established at least in part by a rib in the base rising up from a plane defined by the base.

22. (original) The data storage device of Claim 18, wherein the means for mechanically constraining is arcuate shaped across a radial portion of the data storage medium.

23. (withdrawn) The data storage device of Claim 18, wherein the means for mechanically constraining extends only across an outer radial portion of the data storage medium.

1189-BAWD

BEST AVAILABLE COPY